National Institute of Environmental Health Sciences

Heat-related mortality in residents of nursing homes

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Abstract:

BACKGROUND: in population-based studies, age and morbidity were associated with heat-related mortality. The nursing home population reveals both factors and may represent a highly vulnerable subgroup. Therefore, temperature-mortality relationship was examined in residents of nursing homes. METHODS: the association between daily ambient maximum temperature and mortality was analysed in 95,808 nursing home residents in southwest Germany between 2001 and 2005. Time series analyses were applied across age groups, sex and functional abilities. In addition, excess mortality was determined for the 2003 heat wave. RESULTS: mortality risk was lowest at maximum temperatures between 16 and 25.9 degrees Celsius. Risk increased by 26 and 62% at days of 32.0-33.9 and 34 degrees Celsius and more, respectively. In August 2003, heat caused >400 additional deaths in the observed population and was followed by only a moderate mortality displacement in the following months. The excess number of deaths during the heat wave was particularly high in residents aged > or Euro Surveillance (Bulletin Europeen Sur Les Maladies Transmissibles; European Communicable Disease Bulletin) 90 years and in residents with higher care needs. CONCLUSION: high ambient temperature was associated with an increased mortality risk in all analysed subgroups of the nursing home population. Medical competence and supervision are available in nursing homes and should, therefore, be favourable preconditions for the implementation of preventive measures.

Source: http://dx.doi.org/10.1093/ageing/afp248

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Temperature

Temperature: Extreme Heat

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Europe

European Region/Country: European Country

Other European Country : Germany

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Morbidity/Mortality

Medical Community Engagement: ☑

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern: ☑

populations at particular risk or vulnerability to climate change impacts

Children

Other Vulnerable Population: people living in institutions

Resource Type: ☑

format or standard characteristic of resource

Research Article

Resilience: ☑

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content